

REMARKS

Claims 11, 12 and 14-20 are currently pending in the present application.

35 U.S.C. 103(a) Rejection

Claims 11-20 have been rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 7,038,577 to Pawlicki et al. (the “Pawlicki reference”) in view of U.S. Patent Publication No. 2002/0041239 by Shimizu et al. (the “Shimizu reference”).

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references, and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. M.P.E.P. §2143. In addition, as clearly indicated by the Supreme Court, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. See KSR Int’l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (Id., at 1396).

To the extent that the Examiner may be relying on the doctrine of inherent disclosure in support of the obviousness rejection, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)). Moreover, if a proposed modification of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959).

Claim 11 recites, in relevant part, “**determining at least one of a position and an anticipated position of a vehicle during a parking operation in relation to an oncoming lane of a multi-lane roadway.**” In stark contrast, the “Shimizu” reference aids in parking a vehicle based on the **maximum steering angle**, thereby completely disregarding to the oncoming lane. In this regard, the “Shimizu” reference provides that the “expected parking position is set at a position that the subject vehicle reaches when reversing with the **steering wheel turned fully to the left.**” (The “Shimizu” reference, Abstract, (emphasis added)). It follows that, by using a maximum steering angle, the vehicle in “Shimizu” more readily **intersects the oncoming lane.** Thus, the “Shimizu” reference not only **completely disregards the oncoming lane** but relies on a method that more likely will intersect the oncoming lane. Notably, nothing in the “Shimizu” reference teaches or suggests “determining at least one of a position and an anticipated position of a vehicle during a parking operation **in relation to an oncoming lane of a multi-lane roadway.**” In addition, the secondary “Pawlicki” reference does not cure, and is not asserted to cure, this critical deficiency.

Furthermore, the “Shimizu” reference does not disclose or suggest the claim feature of “determining at least **one potential intersection** of the anticipated parking trajectory with the **oncoming lane,**” as recited in claim 11. The Final Office Action acknowledges this deficiency but relies on the “Pawlicki” reference to cure this critical defect. It is respectfully submitted that this assertion is not supported by the cited reference.

The “Pawlicki” reference merely discusses an edge detection algorithm to detect edges of objects in captured images, and in turn determines whether a vehicle or object is present based on whether the detected edges match the physical characteristics of vehicles or recognized objects so as to avoid any impending collision. It is provided that the “system processes the detected edges within the image data subset to determine if they correspond with physical characteristics of **vehicles and other objects** to determine whether the detected edge or edges is/are **part of a vehicle, or a significant edge or object at or toward the subject vehicle.**” (The “Pawlicki” reference, column 2, lines 59 to 64, (emphasis added)). Significantly, the “Pawlicki” reference provides that filtering mechanisms are used that “substantially eliminate or substantially **ignore** edges or pixels that are not or **cannot be indicative of a vehicle or significant object....**” (*Id.*, column 2 line 65 to column 3 line 2,

(emphasis added)). Thus, the “Pawlicki” reference simply ignores everything that is not a vehicle or a significant object. Since an **oncoming lane** is not a vehicle or a significant object, it follows that the “Pawlicki” reference cannot disclose the features of the claimed subject matter. Therefore, the overall teachings of the “Shimizu” reference and the “Pawlicki” reference fail to disclose or suggest the feature of “determining at least one potential intersection of the anticipated parking trajectory with the **oncoming lane**,” as provided in the context of the claimed subject matter.

Still further, *prima facie* obviousness cannot be established based on a modification of a reference that destroys the intent, purpose, or function of the invention disclosed in the reference, since there is no suggestion or motivation to make the proposed modification. *See In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). The “Shimizu” reference makes an object of its invention to simplify and reduce the cost of its system. In fact, it provides that “there is **no need for an image processing device** for detecting the target parking position or need for calculation of the driver’s operations required for moving the subject vehicle along an expected trajectory, the parking aid system can be realized with very low cost.” (The “Shimizu” reference, paragraph 0009). In stark contrast, the “Pawlicki” reference relies heavily on image gathering, processing, and calculating to detect edges of images to determine whether something is a vehicle or an object of significance. Thus, not only does the “Shimizu” reference teach away from the “Pawlicki” reference, their combination would defeat the purpose and intent of the “Shimizu” reference. For at least these reasons, it would not be obvious for one skilled in the art to combine the teachings of the “Shimizu” reference with those of the “Pawlicki” reference.

For at least the foregoing reasons, claims 11 and 17, as well as dependent claims 12, 14-16 and 18-20, are allowable over “Pawlicki” and “Shimizu.”

CONCLUSION

In view of all the above, it is believed that the rejections of the claims have been obviated, and that claims 11, 12 and 14-20 are allowable. It is therefore respectfully requested that the rejections be reconsidered and withdrawn, and that the present application issue as early as possible.

Respectfully submitted,

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